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Market Survey Questionnaire

for

Bridge - Light Assault Gap Crossing Capability: Type III

GENERAL INFORMATION: The U.S. Government appreciates the time and effort taken to respond to this survey. The U.S. Government acknowledges its obligations under 18 U.S.C. §1905 to protect information qualifying as "confidential" under this statute. [To avoid possible confusion with the meaning of the term "confidential" in the context of Classified Information," we will use the term "PROPRIETARY."] Pursuant to this statute, the U.S. Government is willing to accept any trade secret or PROPRIETARY restrictions placed on qualifying data forwarded in response to the survey questions and to protect it from unauthorized disclosure subject to the following:

1. Clearly and conspicuously mark qualifying data with the restrictive legend (all caps) "PROPRIETARY" with any explanatory text, so that the U.S. Government is clearly notified of what data needs to be appropriately protected.

2. In marking such data, please take care to mark only those portions of the data or materials that are truly confidential (over breadth in marking inappropriate data as "PROPRIETARY" may diminish or eliminate the usefulness of your response - see item 6 below). Use circling, underscoring, highlighting or any other appropriate means to indicate those portions of a single page which are to be protected.

3. The U.S. Government is not obligated to protect unmarked data. Additionally, marked data that is already in the public domain or in the possession of the U.S. Government or third parties, or is afterward placed into the public domain by the owner or another party through no fault of the U.S. Government will not be protected once in the public domain. Data already in the possession of the U.S. Government will be protected in accordance with the U.S. Government's rights in the data.

4. Confidential data transmitted electronically, whether by physical media or not, whether by the respondent or by the U.S. Government, shall contain the "PROPRIETARY" legend, with any explanatory text, on both the cover of the transmittal e-mail and at the beginning of the file itself. Where appropriate for only portions of an electronic file, use the restrictive legends 'PROPRIETARY PORTION BEGINS:" and "PROPRIETARY PORTION ENDS."

5. In any reproductions of technical data or any portions thereof subject to asserted restrictions, the U.S. Government shall also reproduce the asserted restriction legend and any explanatory text.

6. The U.S. Government sometimes uses support contractors in evaluating responses. Consequently, responses that contain confidential information may receive only limited or no consideration since the Respondent's marking of data as "PROPRIETARY" will preclude disclosure of same outside the U.S. Government and therefore will preclude disclosure to these support contractors assisting the evaluation effort. The U.S. Government will use its best efforts to evaluate those responses that contain confidential information without using support contractors consistent with the resources available.

DESCRIPTION OF INTENT:

THIS IS A MARKET SURVEY REQUESTING INFORMATION IN SUPPORT OF THE FOLLOWING PERFORMANCE REQUIREMENT: No contract will be awarded from this announcement. This is not a Request for Proposal (RFP) or an announcement of a forthcoming solicitation. Also, it is not a request seeking contractors interested in being placed on a solicitation mailing list. Response to this questionnaire is voluntary and no reimbursement will be made for any costs associated with providing information in response to the market survey and any follow-on information requests. Data submitted in response to this market survey will not be returned. No solicitation document exists at this time, and calls requesting a solicitation will not be answered.

PERFORMANCE REQUIREMENT:

The purpose of this questionnaire is to obtain information on commercial industry capability to satisfy U.S. Army requirements for a Light Assault Gap Crossing Capability (LAGCC) bridge. The requirement will be achieved in a single step versus an evolutionary series or steps.

1. The Type III LAGCC system must fully support execution of joint critical operational activities (Threshold {T}), and all critical operational activities (Objective {O}), identified in the applicable joint and system integrated architectures. The system must satisfy the technical requirements for transition to Net-Centric (T), or already Net-Centric (O), military operations to include:

    a. DOD Information Technology Standards and Profile Registry (DISR) mandated Global Information Grid (GIG) Information Technology (IT) standards and profiles identified in the TV-1;

    b. DISR mandated GIG Key Interface Profiles (KIPs) identified in the KIP declaration table;

    c. Net Centric Operations Warfare (NCOW) Resource Management (RM) Enterprise Services;

d. Information assurance requirements including availability, integrity, authentication, confidentiality and nonrepudiation, issuance of an Interim Approval to Operate (IATO) (T), and Approval to Operate (ATO) (O), by the Designated Approval Authority (DAA); and,

e. Operationally effective information exchanges; and mission critical performance and information assurance attributes; data correctness; data availability; and, consistent data processing specified in the applicable joint and system integrated architecture views.

2. Military Load Class (MLC) for the Type III bridge shall be MLC 40/MLC 50 caution (T) and MLC 85/MLC 110 caution (O).

3. The Type III LAGCC shall accept level 3 add on armor for the operators cab while in the travel mode (T), or integrated armor (O). An unarmored vehicle carrying a high probability target is an unacceptable risk.

4. The Type III LAGCC shall have no mission failure due to a single point failure from 20mm weapons fire. Type III shall protect mission critical components against small arm fire (7.62 AP) (T). If wheeled, must have run flat tires (T). These bridges will be high probability targets and as such, will likely receive high volumes of fire. Robust architecture is a must for these bridges to survive long enough to complete the mission under fire.

5. The Type III LAGCC shall be able to cross wet gaps of at least 18m (T), 30m (O).

6. Type III LAGCC shall provide a single lane of 4.0m (13’2”) (T), 4.5m (14’9”) (O). All of these bridges are designed for a single lane of traffic at one time.

7. The Type III LAGCC shall be transportable by highway (870 loadable), ocean, rail, and commercial air assets. Movement to the theater shall be accomplished primarily by means of airlift utilizing a C-130 roll on/roll off transporter aircraft. The Type III LAGCC shall also be transportable by a C-17/C-5 aircraft (T) roll on/roll off (O). Once in the theater of operation the primary mode of transportation will be on a wheeled platform.

8. The Type III LAGCC shall be compliant, at minimum, with the North Atlantic Treaty Organization (NATO) STANAG 2010/2021 and The Tri-lateral Codes for Military Bridging and Gap Crossing Equipment (TDTC).

9. The Type III LAGCC shall have the same mobility as the least capable vehicle in the units it supports, (see paragraph 18 below). Bridge systems must be able to keep pace with the maneuver element to maintain momentum.

10. The Type III LAGCC shall be capable of operating in all types of weather (rain, snow, salt spray, fog, ice, dust, sand, turbulence and high humidity), hot and basic climatic zones (-25°F to 125°F), and wind speeds up to 50 knots without special kits while maintaining full mission capability (T). Shall have cold weather kits allowing operation down to -50°F (O).

11. The Type III LAGCC shall be capable of fording at a normal depth of 48 inches without an affixed deep water fording kit. All external optics and electronic components shall be watertight / proof to preclude damage during shallow water fording operations (T).

12. Type III LAGCC Launch/Retrieve Requirements:

    Threshold (T):
    The operators of the host vehicle (not to exceed a crew of 2 soldiers), shall launch/retrieve the bridge in 10 minutes or less during daylight hours, 15 minutes or less during all conditions of visibility and 15 minutes while wearing Individual Protective Equipment (IPE). The LAGCC must be launchable/retrievable from both ends of the bridge.

    Objective (O):
    The operators of the host vehicle (not to exceed a crew of 2 soldiers) shall launch/retrieve the bridge in 5 minutes or less during daylight hours, 10 minutes or less during all conditions of visibility and 10 minutes while wearing IPE.

13. The Type III LAGCC shall have a means of determining remaining service life and safety/structural deficiencies, which does not require an external power source. The conditions and use of the bridge can vary greatly and it is essential to have a method for determining safety and service life of the bridge.

14. The Type III LAGCC shall have an average transport reconfiguration time of 2 hours or less using equipment operators and onboard tools (T) or loaded and removed in operable configuration and immediately available for towing/operation by its designated prime mover (O) after C-130 transport.

15. The Type III LAGCC launch/retrieval mechanisms shall have a power source that utilizes standard military fuels (JP8) and standard lubricants (if required) or be capable of utilizing the power source (i.e. electrical, air, hydraulic) of the host vehicle (T), slave receptacle of any military vehicle for power (O).

16. The Type III LAGCC launcher/retriever shall provide a back-up capability that will allow the Type III LAGCC platform to be launched and retrieved (T), in 30 minutes (O). The Type II LAGCC will be the sole tactical gap crossing capability within the IBCT.

17. The power source for the Type III LAGCC must possess a NATO slave receptacle. The NATO slave receptacle is standard auxiliary equipment on military equipment and allows interoperability with any vehicle for emergency starts.

18. The Type III LAGCC, when mounted onto or towed by the host vehicle, shall be capable of sustained hard surface speeds of 40 mph (T), 50 mph (O).

19. The Type III LAGCC shall have a roadway width which provides adequate traction when wet or dry for all vehicles organic to the IBCT, (see paragraph 6), traveling at a normal crossing speed of up to a maximum 15 mph (T), 25 mph (O).

20. The Type III LAGCC shall be equipped with lifting and tie-down provisions for transportation in accordance with (IAW) Military Standard (MIL-STD) 209. Military standard lifting and tie-down provisions are necessary for safe and efficient deployment in all modes of transportation.

21. The Type III bridge structural components shall withstand 17,600 MLC 30 vehicle crossings (T), 20,000 MLC 50 crossings (O), without experiencing a durability failure. The launch/retrieve mechanism and bridge structural components shall withstand 800 launch and retrieve cycles (T), 1,000 launch and retrieve cycles (O), without experiencing a durability failure. The Type III LAGCC durability requirements are based upon a 10-year life, which was comprised of 8 years of peacetime and two 180 day wartime periods. It is estimated that a small number of caution crossings will be conducted during the 180-day wartime periods amounting to approximately 150 vehicle crossings at the allowable cautionary MLC.

22. The Type III LAGCC shall have a manual bridge travel lock to lock the bridge into the stowed position while traveling (T). The Type III LAGCC shall have an automated bridge travel lock to lock the bridge into the stowed position while traveling and must alert the operator and commander that the bridge travel lock is in position (O). This requirement is necessary in order to ensure safe operation of the vehicle in travel mode and to prevent damage to the bridge or system. The automated bridge travel lock would ensure the operators are not exposed to enemy fire while emplacing or recovering the bridge.

23. If wheeled, the Type III LAGCC shall be able to change tire pressure from inside the cab of the vehicle. The vehicle operator of the Type III LAGCC must be able to adjust the tire pressure of the vehicle to ensure maximum mobility through a multitude of terrain types without exposure to enemy fire.

24. The Type III LAGCC shall be capable of achieving 350 miles without refueling at an avg speed of 40 mph on level paved roads (T); 400 miles without refueling at an avg speed of 45 mph is objective (O). The Type III shall be capable of ferrying maximum load (40 tons) in currents of 1.82 mps (6 fps) without refueling for 6 hours (T); maximum load (50 tons) in currents of 3.04 mps (10 fps) without refueling for 8 hours is objective (O). Maneuver elements must be

capable of keeping momentum and pushing an advantage without stopping for a single vehicle to refuel.

25. The Type III LAGCC shall be able to perform its mission while in an electromagnetic environment consistent with requirements set for ground based systems and other vehicles in the Joint Force. This includes voice, data, and camera video.

26. Radio frequency dependent components of the Type III LAGCC must not produce electromagnetic emissions that interfere with or degrade the performance of existing platforms, dismounted personnel, instrumentation, weapons, sensors, or communications subsystems operating within its range. Radio frequency dependent components of the proposed system must comply with applicable national and international spectrum management statutes, policies and regulations, to include obtaining spectrum supportability in all host nations where deployment of the system or equipment is planned. This includes joint spectrum certification, and host nation coordination.

INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE:

1. Number each response with the appropriate question number.

2. You do not have to repeat the question in your response.

3. If you cannot answer the question, please indicate “No Response.”

4. If a response will satisfy another question, state: “See response to question XX.”

5. Include relevant sales media and product manuals. If providing an ACROBAT formatted manual, annotate the manual to indicate which material is applicable to the questions. If preferred, include Internet Web links to locations where animations/videos may be viewed.

6. If your sales media and/or manuals contain a restricted distribution statement, issue a release statement indicating that the restricted material may be distributed to Army personnel involved with this Market Survey.

7. Spell out any acronyms in their first instance.

8. Clearly mark any confidential information. If applicable the front page of your response package should state “Confidential Information Contained.” Provide a release statement indicating that the confidential information may distributed to Army personnel involved with this Market Survey.

A. GENERAL

1. Manufacturer
    a. Name
    b. Mailing Address
    c. Cage Code (if any)
    d. Website

2. Personnel Responding to Questionnaire
    a. Name
    b. Title
    c. Company Responsibility/Position
    d. Telephone/Fax Numbers
    e. E-Mail Address

3. System Description
    a. Type III model number

4. Physical Characteristics
    a. Maximum length
    b. Maximum width
    c. Maximum height
    d. Overall weight
    e. Wheelbase
    f. Track width
    g. Engine make/model
    h. Engine power/EPA rating
    i. Vehicle classification (MLC)

B. PRODUCTION CONSIDERATION

1. How long has your system been in production?

2. When was the last time your system underwent a product upgrade? Is there a product upgrade planned in the next five years? Provide explanation.

3. Who has purchased your system? Provide explanation.

4. What is the production lead-time after receipt of an order (days)?

5. What is the approximate cost of your system?

C. PERFORMANCE CONSIDERATIONS

1. Describe the Net-Readiness of the bridge system. Can the bridge system support Net-Centric military operations which enables an exchange of secure data via the network?

2. Does your system meet the U.S. Army's requirement of being operable by 5th and 95th percentile female and male Soldiers?

3. What are the maximum longitudinal and cross slopes of the near bank that your system is capable of being operated? Ref. 4.2.5 Trilateral Design and Test Code for Military Bridging and Gap-Crossing Equipment.

4. What are the minimum and maximum height differences between the near and far banks across which the bridge can be launched/retrieved?

5. What is the longest bridge that has ever been constructed using your system? Provide explanation.

6. What is the maximum transverse slope of the deck while the bridge is being crossed by the defined MLC vehicles?

7. What preparation is required for the near and the far banks of the gap? Comment on the ability of the Soldiers to perform the bank preparation.

8. Assuming an average speed of 40 mph on a level paved road, what is the travel range of your system? 45 mph? Provide explanation.

9. Is your system armored? What is the threat level? Provide explanation.

10. Can your system be launchable/retrievable from both ends? Provide explanation.

11. Can your system utilize the slave receptacle of any military vehicle? Provide explanation.

12. Does your system have run flat tires? Can the operators adjust the tire pressure from inside the cab of your system? Provide explanation.

13. Does your system's launch/retrieval mechanism have a power source that utilizes JP-8 fuel and standard lubricants?

14. Ferrying MLC 40, how long can your system run in currents of 6 fps without refueling? MLC 50 in 10 fps? Provide explanation.

15. How many operators does your system require?

16. How much time is required to launch/retrieve your system during: a) daylight hours, b) all conditions of visibility, c) and while wearing Individual Protective Equipment (IPE)?

17. Is your system capable of running JP-8 fuel? Provide explanation.

18. What is the allowable MLC that your system can demonstrate?

19. What is the ground speed of your system? What is its speed in the water?

20. What is the minimum and maximum gap distance that your system can span? Can your system connect together to span larger gaps? Provide explanation.

21. What is the minimum and maximum lane width for vehicles to cross?

D. TRANSPORTABILITY

1. Can your system be loaded into a C17/C5A or C-130 aircraft? Does your system have a capability to roll-on/roll-off a C17/C5A or C-130 aircraft? Provide explanation.

2. Is your system equipped with lifting and tie-down provisions for transportation in accordance with MIL-STD-209? Provide explanation.

3. Is your system capable of fording at a normal depth of 48 inches without an affixed deep-water fording kit? Are all external optics and electronic components watertight/proof to prevent damage during shallow water fording operations? Provide explanation.

4. Explain how the bridge is locked and stowed while traveling between bridge launch sites? Is this a manual or automatic method? Provide explanation.

5. Is the bridge system capable of roll-on/roll-off with commercial, ocean shipping?

6. Using only organic material handling equipment, how long will it take your system to be fully mission capable once off loaded from the aircraft? Provide explanation.

E. ENVIRONMENTAL

1. Is your system able to perform its mission while in an electromagnetic environment (MIL-STD-1310)? Provide explanation.

2. Does your system perform its mission in an Electronic Attack (EA) environment described in MIL-STD-464? Provide explanation.

3. Can your system survive a High-altitude Electromagnetic Pulse (HEMP)? Provide explanation.

4. Does your system provide Chemical, Biological, Radiological, and Nuclear (CBRN) protection? Provide explanation.

5. What is the temperature and wind speed range that your system is capable of operating with and without cold weather kits?

F. SERVICE

1. Do you have a tracking procedure for the type and number of crossings by different vehicles? Note that the bridge may be crossed by vehicles possessing a MLC lesser than those specified earlier in this document.

2. What are the criteria and/or indicators used with your system to determine when a component needs to be refurbished or discarded? Provide explanation.

3. What maintenance is required in both the field and the depot? Are special tools required? Provide explanation.

4. How many approximate launch/retrieve cycles can your system perform without experiencing a durability failure? Provide explanation.

5. How many approximate MLC 30 vehicle crossings can your system perform without experiencing a durability failure? MLC 50? Provide explanation.

G. SAFETY

1. Are there any unique recommended precautionary procedures to be used in operating or maintaining this equipment? Provide explanation.

2. Does your system have a roadway that provides adequate traction when wet or dry for vehicles to cross? What is the maximum and minimum speed for normal crossings? Provide explanation.

3. For vehicles crossing the bridge on a new moon night, does your system utilize any crossing aids and/or guidance devices to prevent the vehicles from colliding?

4. Is your system self-cleaning from debris (mud, sand, snow, ice, etc…) build up?

5. To prevent walking/movement of the bridge towards the gap as a result of the crossing traffic, does your system utilize anchorages to prevent the walking/movement? If so, provide a description.

6. Does your system provide a back-up capability that will allow it to be launched and retrieved in the event of a failure of its primary power source? If so, how many minutes will it take to be launched and retrieved? Provide explanation.

7. Are any operators of the system exposed to enemy fire during the launch/retrieve cycle? If so, how many?

H. QUALITY

1. Does your system have a means of determining remaining service life and safety/structural deficiencies that does not require an external power source? Provide explanation.

2. Does your plant and system meet all ISO certifications and standards? Provide explanation.

3. How many units have been produced in the current configuration?

I. SURVIVABILITY

1. Is your system hardened against weapon fire? If so, explain.

J. LOGISTICS

1. Is your system compliant with North Atlantic Treaty Organization (NATO) and Tri-lateral codes? Provide explanation.

Responses to this market investigation questionnaire should be sent via Email to John Karczewski – john.p.karczewski@us.army.mil and Lori Finchem – lori.finchem@us.army.mil. You are requested to put "LAGCC TYPE III MARKET SURVEY RESPONSE" in the subject line of the email. You may respond in total or to any part of this questionnaire. Any request for clarifications of the Survey shall also be addressed to John Karczewski, and will be published with the appropriate answers at the same web location as this Questionnaire.

Any product literature that cannot be emailed may be sent to:

U.S. Army TACOM Life Cycle Management Command
AMSCC-TAC-ADCD
Mailstop: 326
ATTN: John Karczewski
6501 E. Eleven Mile Rd.
Warren, MI 48397 – 5000

Replies to this questionnaire must be received by 9 Oct 2009. Please mark your information "Confidential" as you feel appropriate. Your input is voluntary and no compensation can be made for your participation in this survey. We appreciate your cooperation in answering these questions and thank you in advance for your participation.

BE ADVISED that updates to the LAGCC or non-confidential questions from interested parties and responses by the U.S. Government will be posted to as addenda to the questionnaire.